Dylan J. MAVRIDES

EDUCATION

JUNE 2019	Princeton University A.B. Degree in MATHEMATICS, Certificate in COMPUTER SCIENCE CUM. GPA: 3.7/4.0; DEP. GPA: 3.9/4.0
JUNE 2015	Winter Park High School (Winter Park, Florida) IB DIPLOMA (International Baccalaureate Programme) CUM. GPA: 4.0/4.0

RESEARCH EXPERIENCE

AUG 2022 - SEP 2022	**MLAB Participant at REDWOOD RESEARCH** Attended a machine learning bootcamp hosted by Redwood Research. Bootcamp was application-based and fully-funded. Activities included reimplementing much of PyTorch/neural nets from scratch, implementing BERT, GPT-2, Stable diffusion. Learned about mechanistic interpretability on small models, and had lectures by leading AI safety researchers.
AUG 2018 - MAY 2019	**Senior Thesis advised by NOGA ALON and NATHANIEL BOTTMAN** Proved that 2-Associahedra are Eulerian posets. We have since extended this to a proof that they're Eulerian lattices, and that their topological realizations are balls. Paper accepted to Contemporary Mathematics, upcoming issue.
JAN 2018 - MAY 2018	**Junior Paper advised by S. MATTHEW WEINBERG** Extended some of his earlier results about some properties of the Nash equilibria in "Bitcoin-like auctions" to a generalized setting.
JUN 2017 - SEP 2017	**Research Intern in the PRINCETON COMPUTER SCIENCE DEPARTMENT** Research intern under the direction of Dr. Jérémie Lumbroso working on random generation of permutations with certain properties and random generation of Fibonacci Heaps. Attended AofA 2017.
JUN 2016 - SEP 2016	**Research Intern at the PRINCETON PLASMA PHYSICS LAB** Simulation of particle motion in the presence of collisions and magnetic/electric fields. Optimization of magnetic coil geometries for the Magnetic Centrifugal Mass Filter (MCMF) project.

JOB EXPERIENCE

AUG 2020 - PRESENT	**Quantitative Trader at JANE STREET CAPITAL** Full-time trader and researcher on the International ETFs desk. Passed the SIE, Series 7, and Series 57 exams.
JUN 2019 - AUG 2019	**Quantitative Trading Internship at JANE STREET CAPITAL** Researched trading strategies primarily with the statistical arbitrage desk at their New York office.
JUN 2018 - AUG 2018	**Trading Internship at SUSQUEHANNA INTERNATIONAL GROUP (SIG)** Worked with equity options traders at their Philadelphia office. Team won the intern electronic trading competition. Won the intern poker tournament.
JAN 2018 - MAY 2019	**Undergraduate Course Assistant at PRINCETON UNIVERSITY** Grading, answering questions for students, and other course assistance for COS 445: Economics and Computing.
SEP 2015 - MAY 2018	**Tutor and Consultant for CRIMSON CONSULTING** Provided tutoring, college applications consulting, and standardized test coaching services via Skype and other online tools. Multiple students accepted to Princeton and other top schools.

Course Work

Mathematics:	Linear Algebra, Algebra I, Algebra II, Logic, Analysis, Complex Analysis, Topology
	Differential Topology, Probability/Stochastic Systems, Analytic Combinatorics, Graph Theory
Computer Science:	Algorithms and Data Structures, Quantum Computing, Economics and Computing
	Computational Geometry, Theory of Computation, Cryptography
Graduate:	Advanced Algorithm Design, Theoretical Machine Learning, Probability Theory
	Open Problems in Algorithmic Game Theory, Computational Complexity

Skills and Activities

Programming:	Python (NumPy, Pandas, PyTorch, etc.), LaTeX. Some experience with others.
	Microsoft Excel
	Basic Proficiency in French
Activities:	Chess Club (President 2017-18), Math Club, Violin (Princeton Sinfonia)
	Piano, Poker Club (1st on 2017 Princeton Leaderboard), Princeton Envision (officer 2016-2017)

Misc. Awards

2nd Place -	Google Games: a puzzle and programming-based competition at their NY HQ (2017)
1st Place -	Princeton Poker Tournament hosted by SIG (2017)
3rd Place -	US Amateur Team World/East Chess Championship (Team: Princeton A) (2018)
1st Place -	Florida State Quiz Bowl CAC: Division I (2015)
3rd Place -	(tied) k-12 National Chess Championship, 11th grade (2014).
4th Place -	(team) k-12 National Chess Championship, 11th grade (2014).
	National AP Scholar/AP Scholar with Distinction (2015)